

Figure 1A



2/38

ef	94	ca	b3
3	2	1	0

+

00	00	01	e3	44	1c	a2	13	07	a
----	----	----	----	----	----	----	----	----	---

0	9b	8b	12	a6	4d	8d	8f	de	result
---	----	----	----	----	----	----	----	----	--------

Figure 1B



3/38

4019505843

y

2788288333

x

531356654375687

a

11208072603116605406

result

Figure 1C



4/38

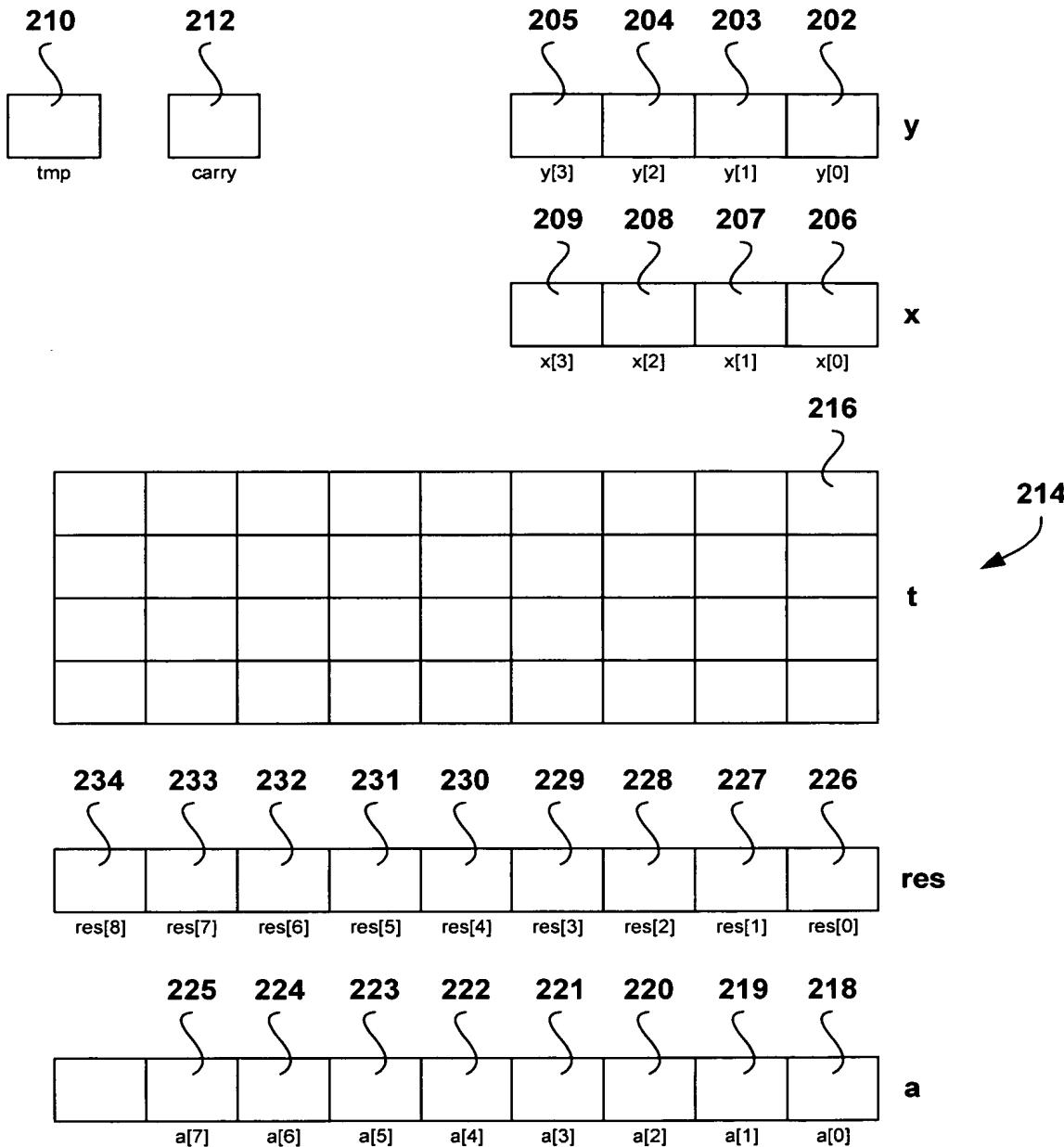


Figure 2A



5/38

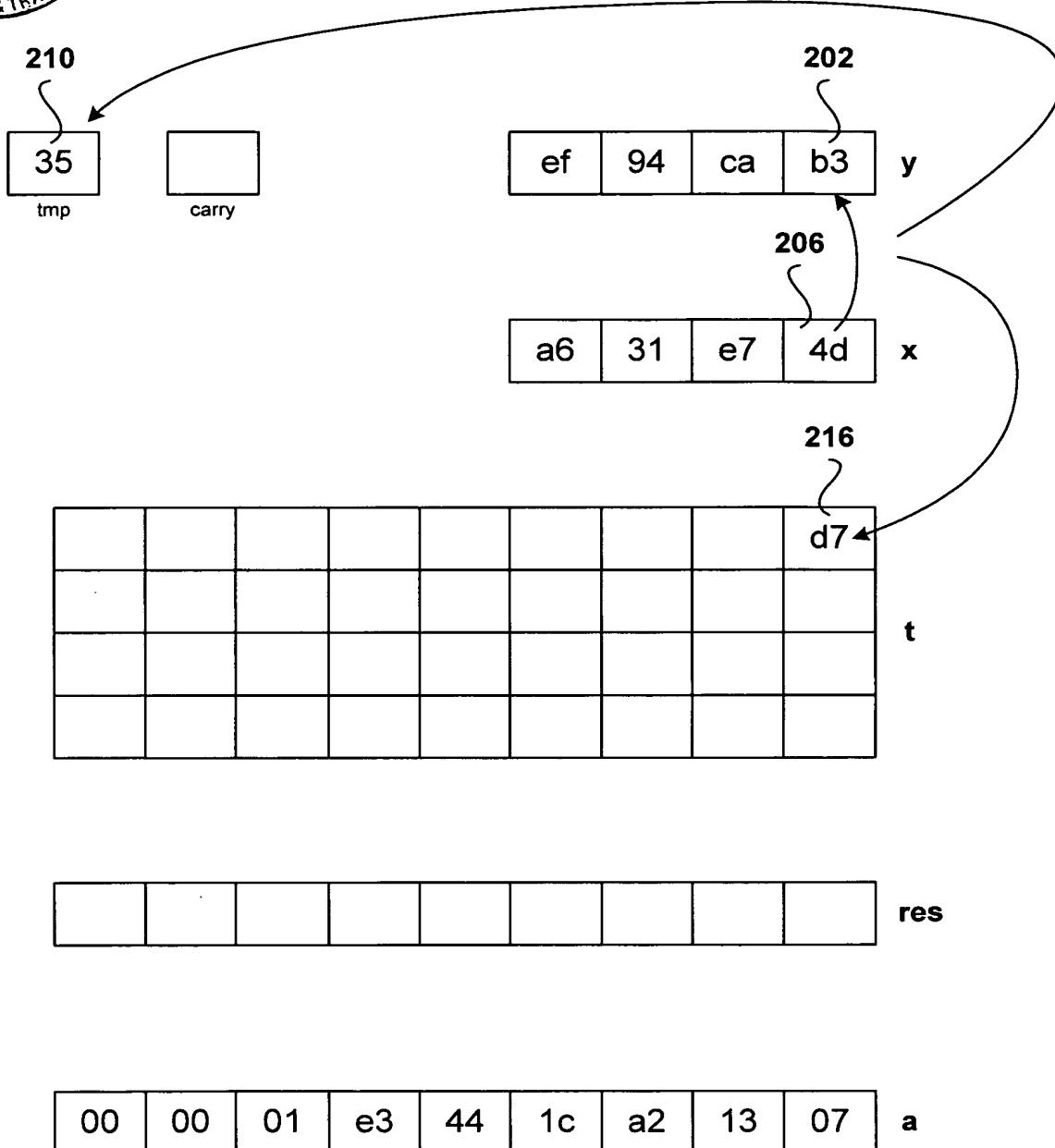
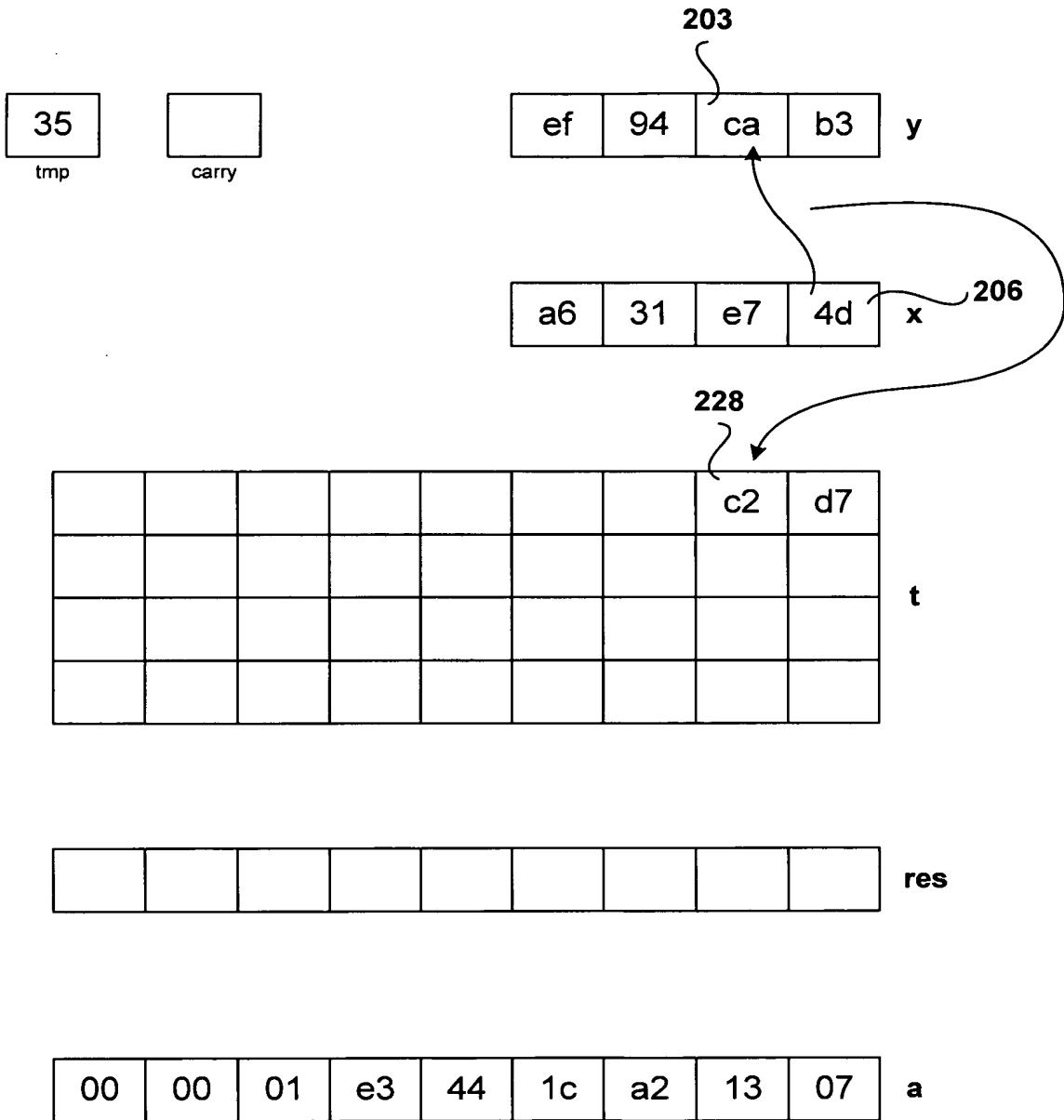


Figure 2B



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**Figure 2C**



7/38

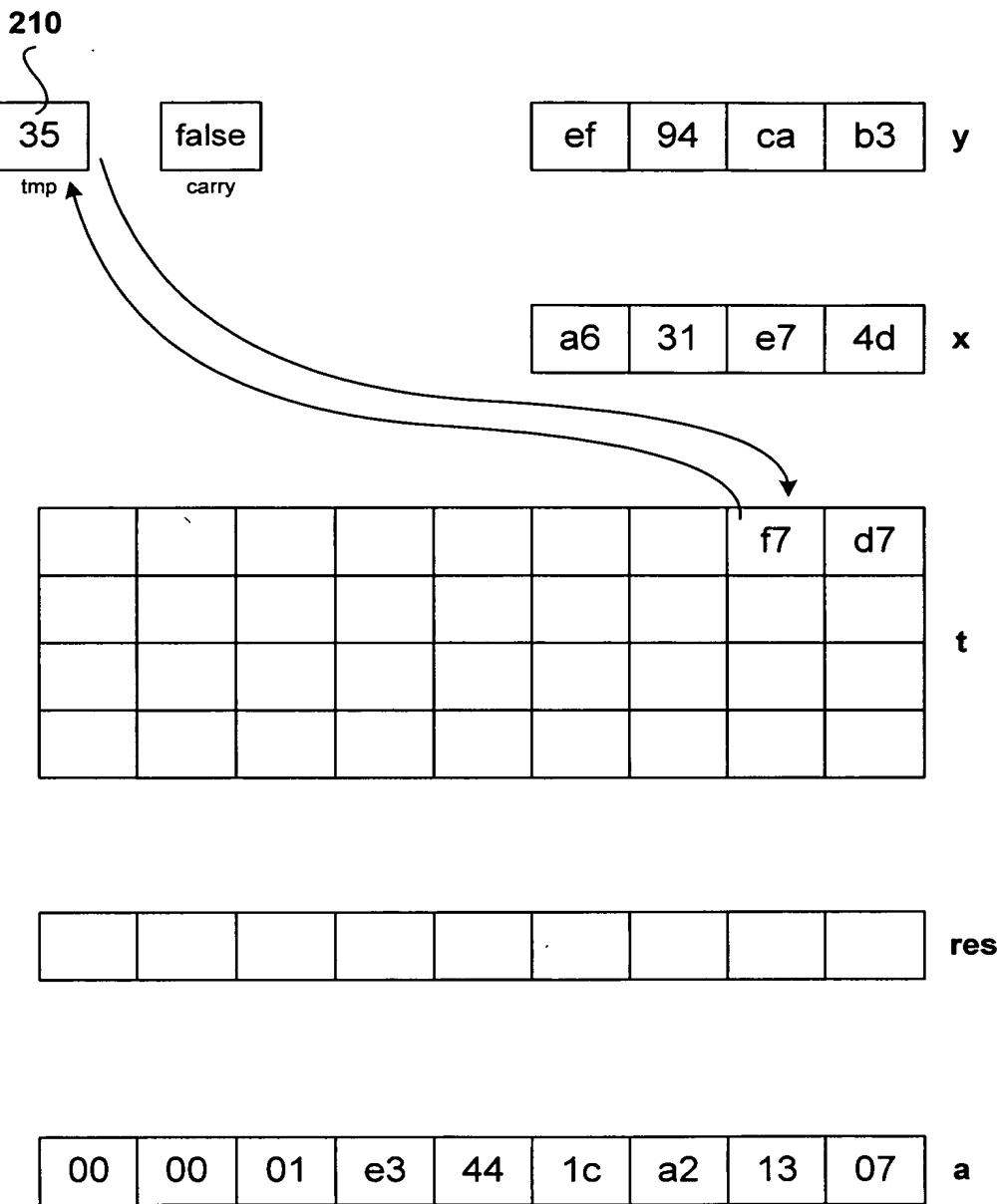


Figure 2D



8/38

210

3c

tmp

false

carry

ef	94	ca	b3
----	----	----	----

y

a6	31	e7	4d
----	----	----	----

x

							f7	d7

t

--	--	--	--	--	--	--	--	--

res

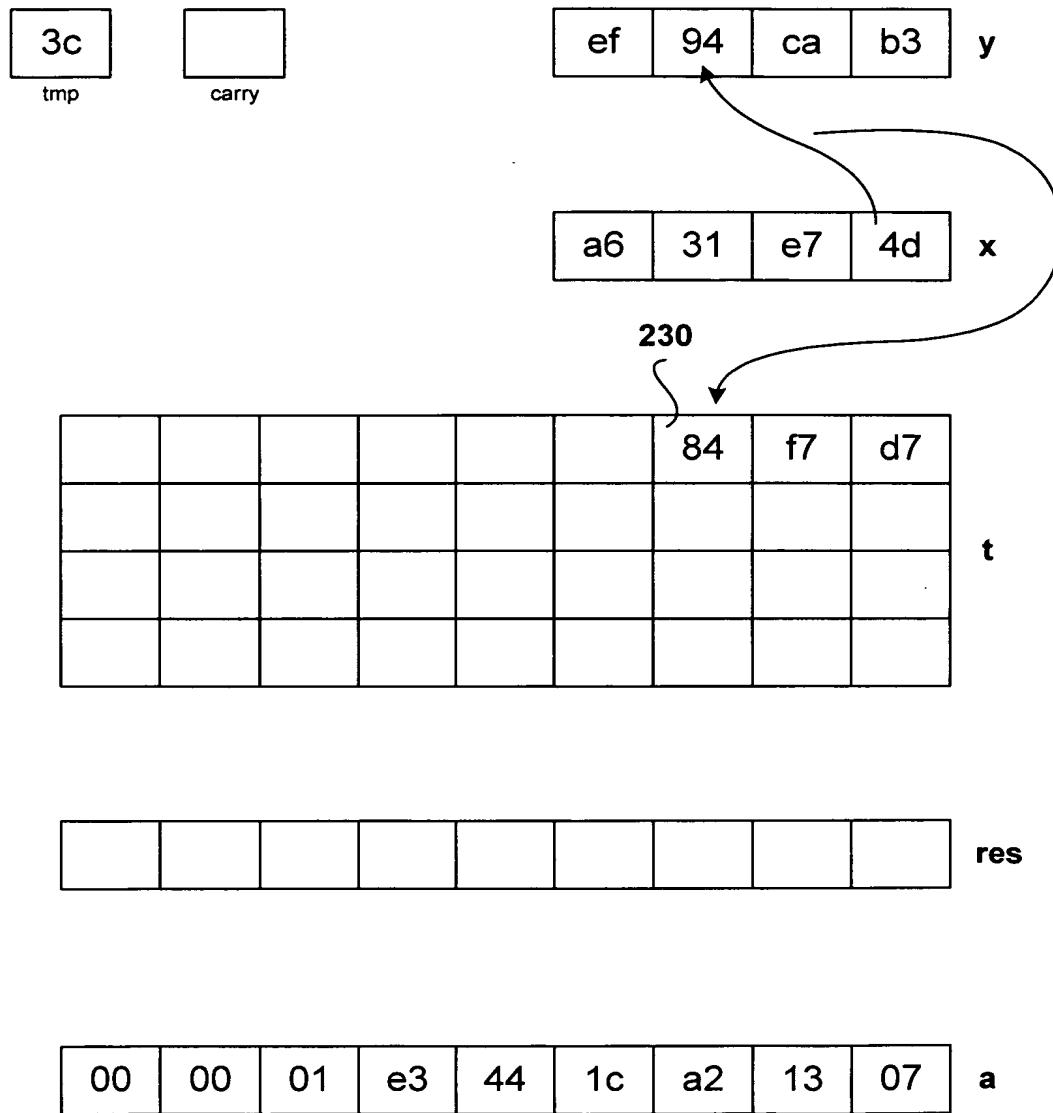
00	00	01	e3	44	1c	a2	13	07
----	----	----	----	----	----	----	----	----

a

Figure 2E



9/38

**Figure 2F**



10/38

2c

tmp

true

carry

ef	94	ca	b3
----	----	----	----

y

a6	31	e7	4d
----	----	----	----

x

				48	of	c0	f7	d7

t

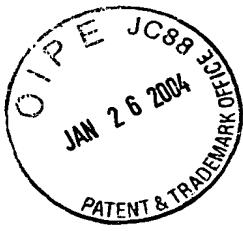
--	--	--	--	--	--	--	--	--

res

00	00	01	e3	44	1c	a2	13	07
----	----	----	----	----	----	----	----	----

a

Figure 2G



11/38

85

tmp

01

carry

ef	94	ca	b3
----	----	----	----

y

a6	31	e7	4d
----	----	----	----

x

232
→

				48	of	c0	f7	d7
			d8	2f	42	e7	85	

t

--	--	--	--	--	--	--	--	--

res

00	00	01	e3	44	1c	a2	13	07
----	----	----	----	----	----	----	----	----

a

Figure 2H



12/38

1c

tmp

false

carry

ef	94	ca	b3
----	----	----	----

y

a6	31	e7	4d
----	----	----	----

x

				48	of	c0	f7	d7
			d8	2f	42	e7	85	
		2d	db	7a	cc	43		

t

--	--	--	--	--	--	--	--	--	--

res

00	00	01	e3	44	1c	a2	13	07
----	----	----	----	----	----	----	----	----

a

Figure 2I



13/38

5f

tmp

true

carry

ef	94	ca	b3	y
----	----	----	----	---

a6	31	e7	4d	x
----	----	----	----	---

				48	of	c0	f7	d7	
			d8	2f	42	e7	85		
		2d	db	7a	cc	43			
	9b	5a	7b	70	12				

234
→

t

--	--	--	--	--	--	--	--	--	--

res

00	00	01	e3	44	1c	a2	13	07	
----	----	----	----	----	----	----	----	----	--

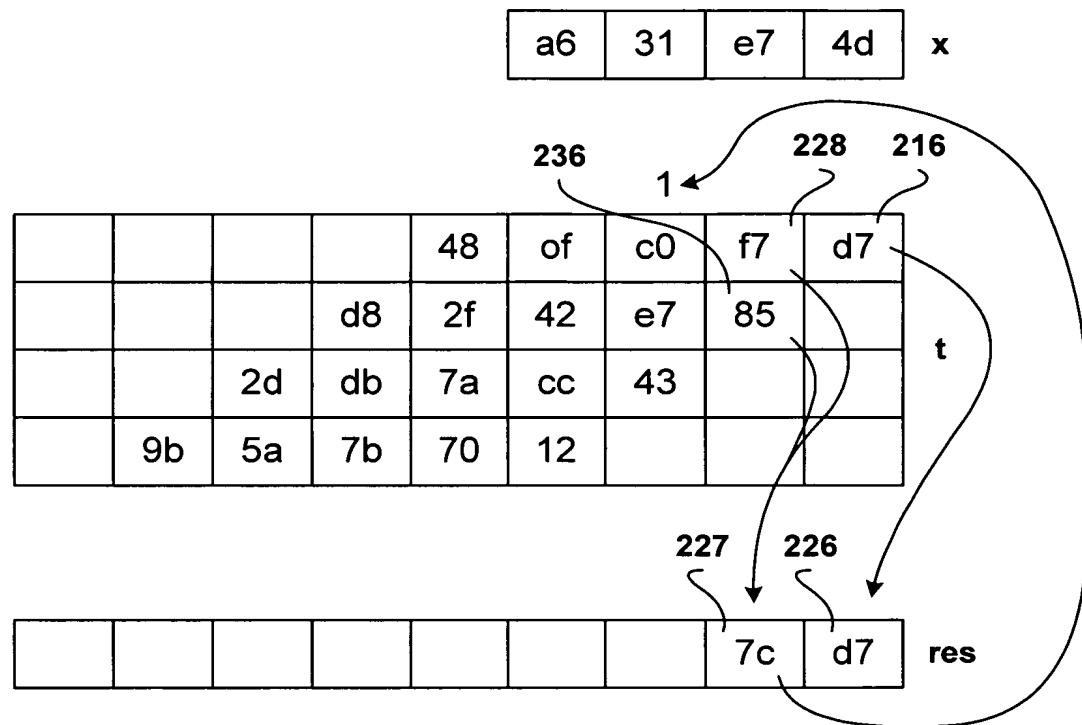
a

Figure 2J



14/38

5f	true	ef	94	ca	b3	y
tmp						



00	00	01	e3	44	1c	a2	13	07	a
----	----	----	----	----	----	----	----	----	---

Figure 2K



15/38

5f

tmp

true

carry

ef	94	ca	b3
----	----	----	----

y

a6	31	e7	4d
----	----	----	----

x

				48	of	c0	f7	d7
			d8	2f	42	e7	85	
		2d	db	7a	cc	43		
	9b	5a	7b	70	12			

t

	9b	89	2f	62	30	eb	7c	d7
--	----	----	----	----	----	----	----	----

res

00	00	01	e3	44	1c	a2	13	07
----	----	----	----	----	----	----	----	----

a

Figure 2L



16/38

5f

tmp

true

carry

ef	94	ca	b3	y
----	----	----	----	---

a6	31	e7	4d	x
----	----	----	----	---

				48	of	c0	f7	d7	
			d8	2f	42	e7	85		
		2d	db	7a	cc	43			
	9b	5a	7b	70	12				

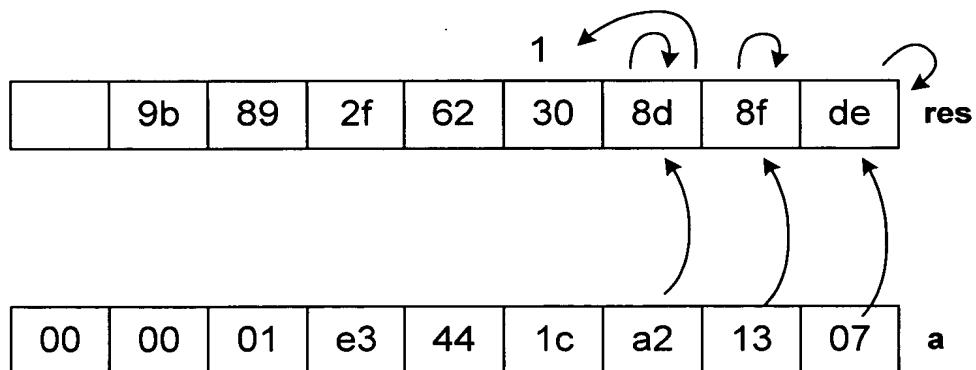


Figure 2M



17/38

5f

tmp

true

carry

ef	94	ca	b3
----	----	----	----

y

a6	31	e7	4d
----	----	----	----

x

				48	of	c0	f7	d7
			d8	2f	42	e7	85	
		2d	db	7a	cc	43		
	9b	5a	7b	70	12			

t

0	9b	8b	12	ab	4d	8d	8f	de
---	----	----	----	----	----	----	----	----

res

00	00	01	e3	44	1c	a2	13	07
----	----	----	----	----	----	----	----	----

a

Figure 2N



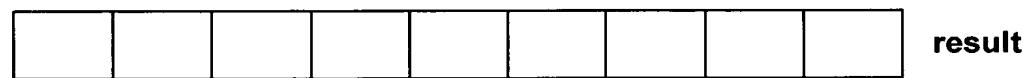
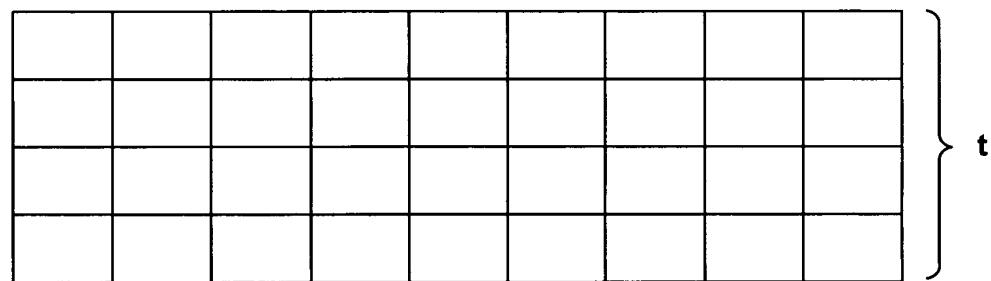
18/38

tmp

carry

ef	94	ca	b3	y
----	----	----	----	---

a6	31	e7	4d	x
----	----	----	----	---

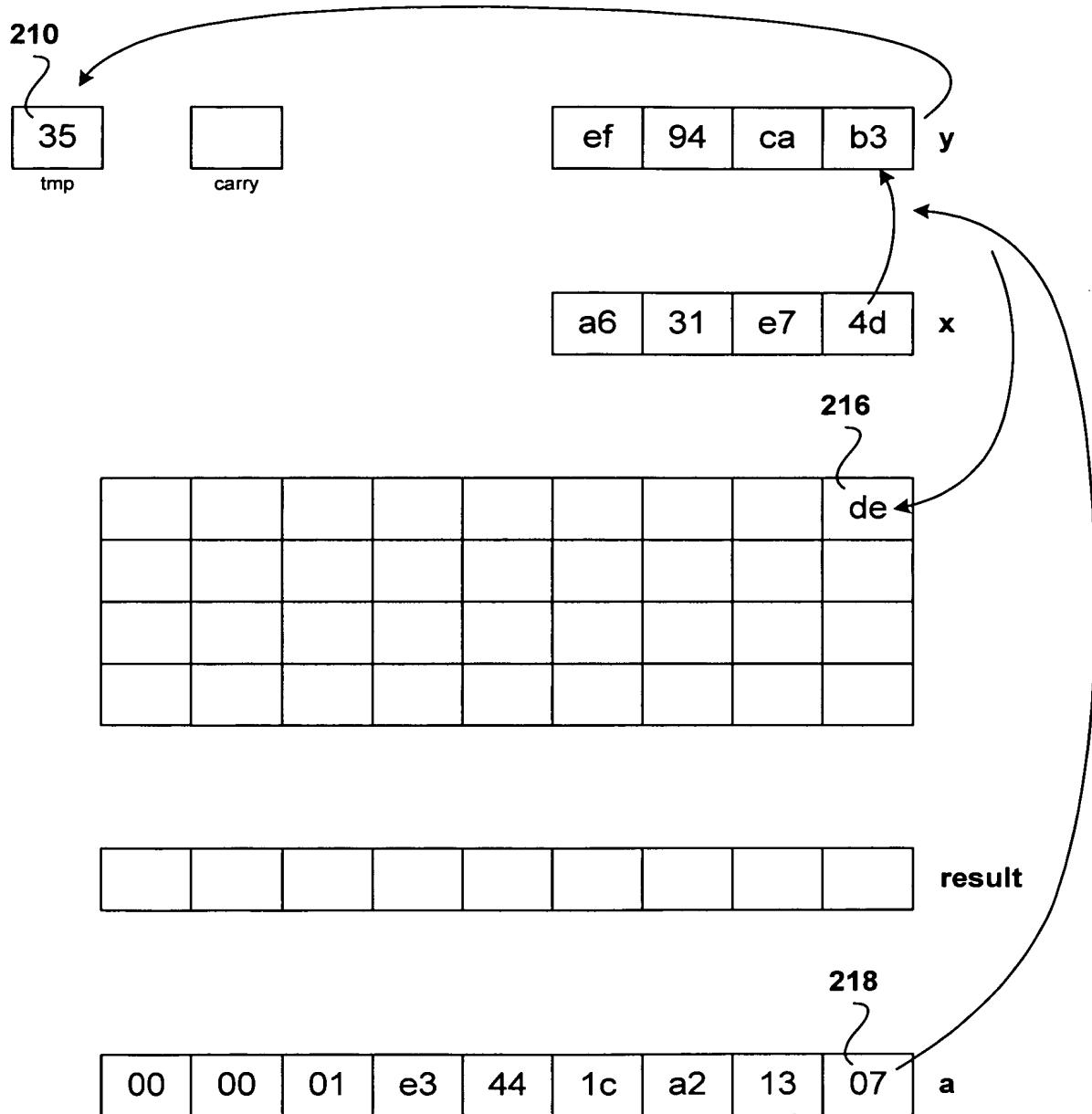


00	00	01	e3	44	1c	a2	13	07	a
----	----	----	----	----	----	----	----	----	---

Figure 3A



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**Figure 3B**



20/38

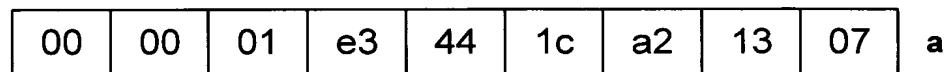
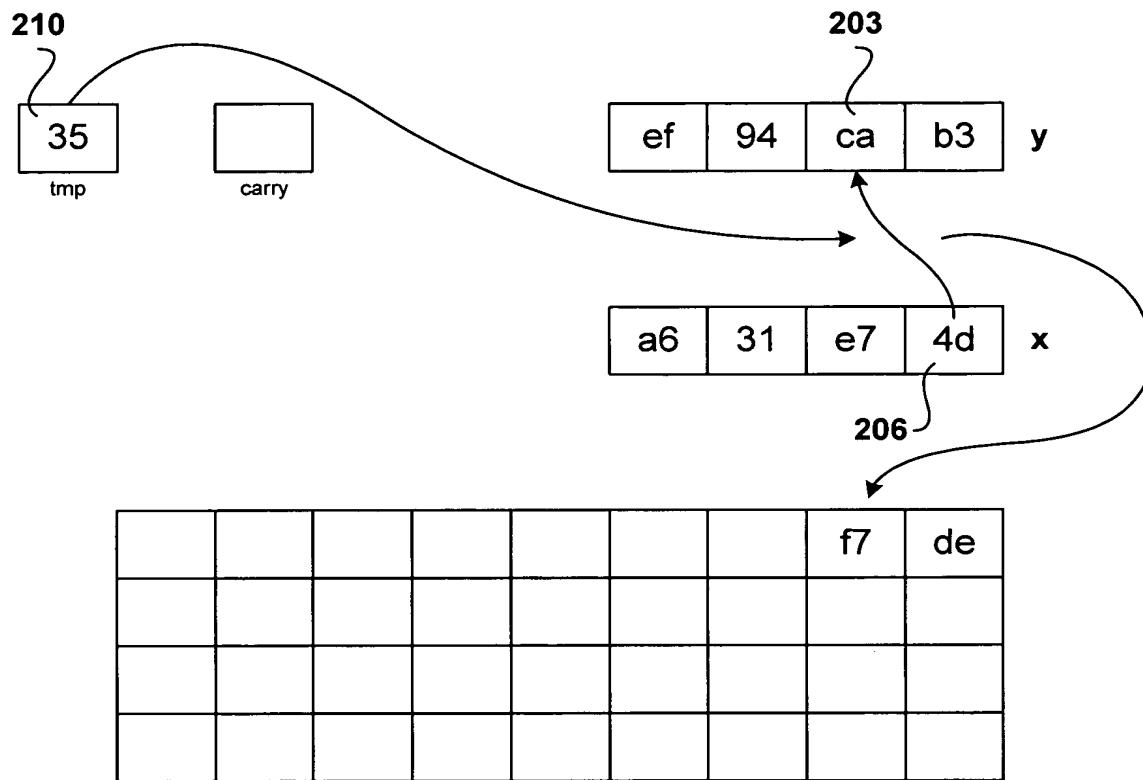
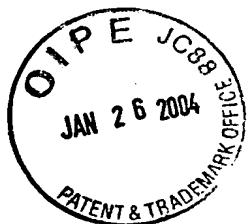
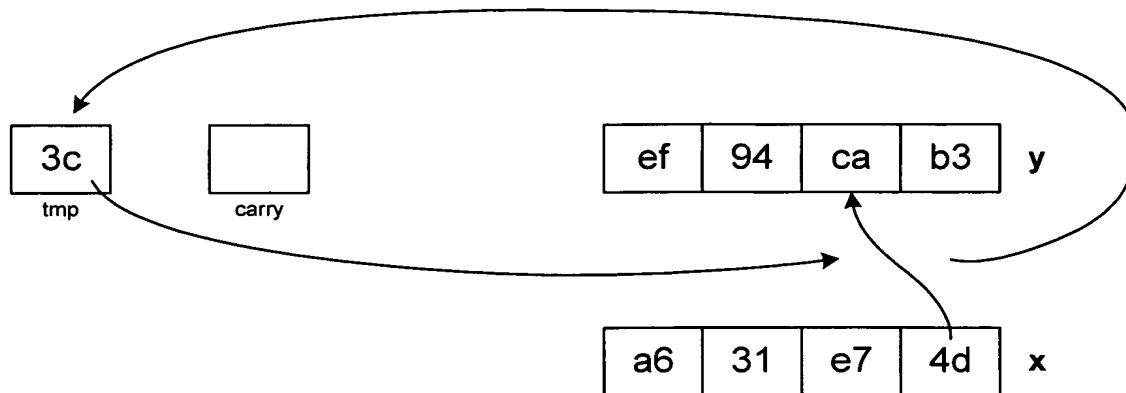


Figure 3C



21/38



								f7	de

--	--	--	--	--	--	--	--	--

result

00	00	01	e3	44	1c	a2	13	07	a
-----------	-----------	-----------	-----------	-----------	-----------	-----------	-----------	-----------	----------

Figure 3D



22/38

2c
tmp

carry

ef 94 ca b3 y

a6 31 e7 4d x

48 of c0 f7 de

result

222
00 00 01 e3 44 1c a2 13 07 a

Figure 3E



23/38

2c

tmp

--

carry

ef	94	ca	b3	y
----	----	----	----	---

a6	31	e7	4d	x
----	----	----	----	---

				8c	of	c0	f7	de

--	--	--	--	--	--	--	--	--

result

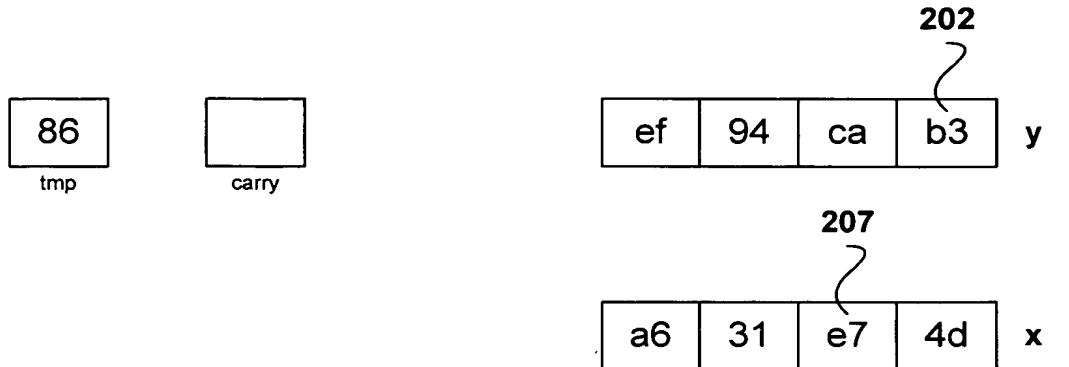
00	00	01	e3	44	1c	a2	13	07
----	----	----	----	----	----	----	----	----

a

Figure 3F



24/38



232 ~

				8c	of	c0	f7	de
		01	bb	2f	42	e7	98	



223

219

00	00	01	e3	44	1c	a2	13	07	a
-----------	-----------	-----------	-----------	-----------	-----------	-----------	-----------	-----------	----------

Figure 3G



25/38

1c
tmp

carry

ef	94	ca	b3
----	----	----	----

y

a6	31	e7	4d
----	----	----	----

x

				8c	of	c0	f7	de
		01	bb	2f	42	e7	98	
		2e	db	7a	cc	e5		

--	--	--	--	--	--	--	--	--	--

result

00	00	01	e3	44	1c	a2	13	07
----	----	----	----	----	----	----	----	----

a

Figure 3H



26/38

60
tmp

carry

ef	94	ca	b3	y
----	----	----	----	---

a6	31	e7	4d	x
----	----	----	----	---

				8c	of	c0	f7	de
		01	bb	2f	42	e7	98	
		2e	db	7a	cc	e5		
	9b	5a	7b	70	2e			

--	--	--	--	--	--	--	--	--

result

00	00	01	e3	44	1c	a2	13	07	a
----	----	----	----	----	----	----	----	----	---

Figure 3I



27/38

60

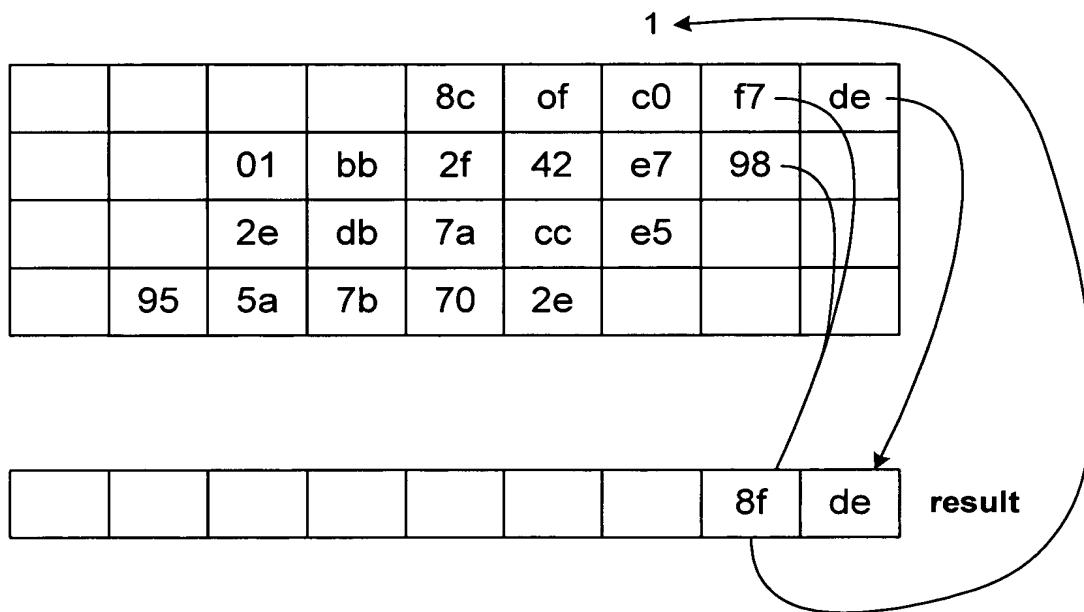
tmp

--

carry

ef	94	ca	b3	y
----	----	----	----	---

a6	31	e7	4d	x
----	----	----	----	---



00	00	01	e3	44	1c	a2	13	07	a
----	----	----	----	----	----	----	----	----	---

Figure 3J



28/38

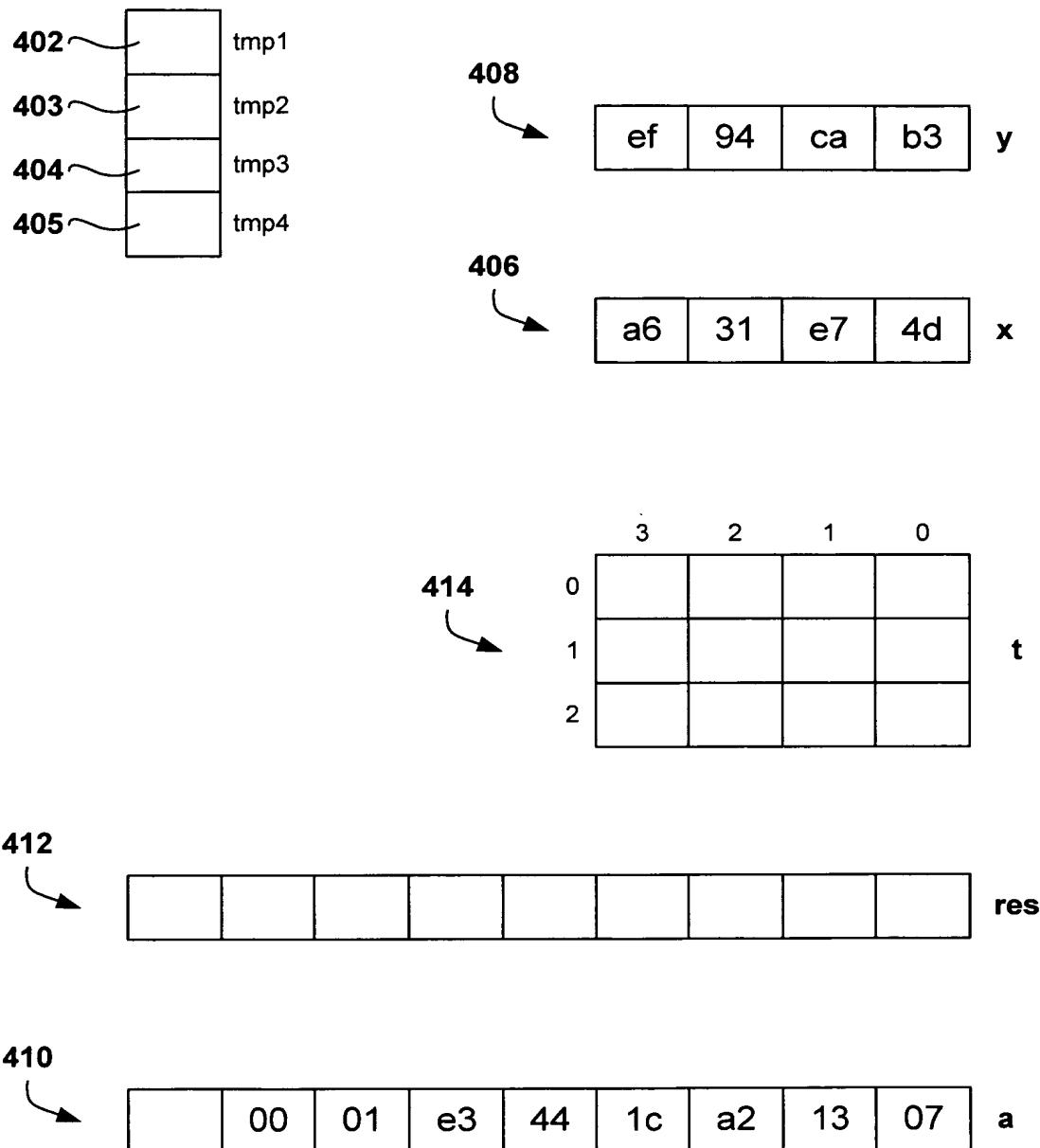


Figure 4A



29/38

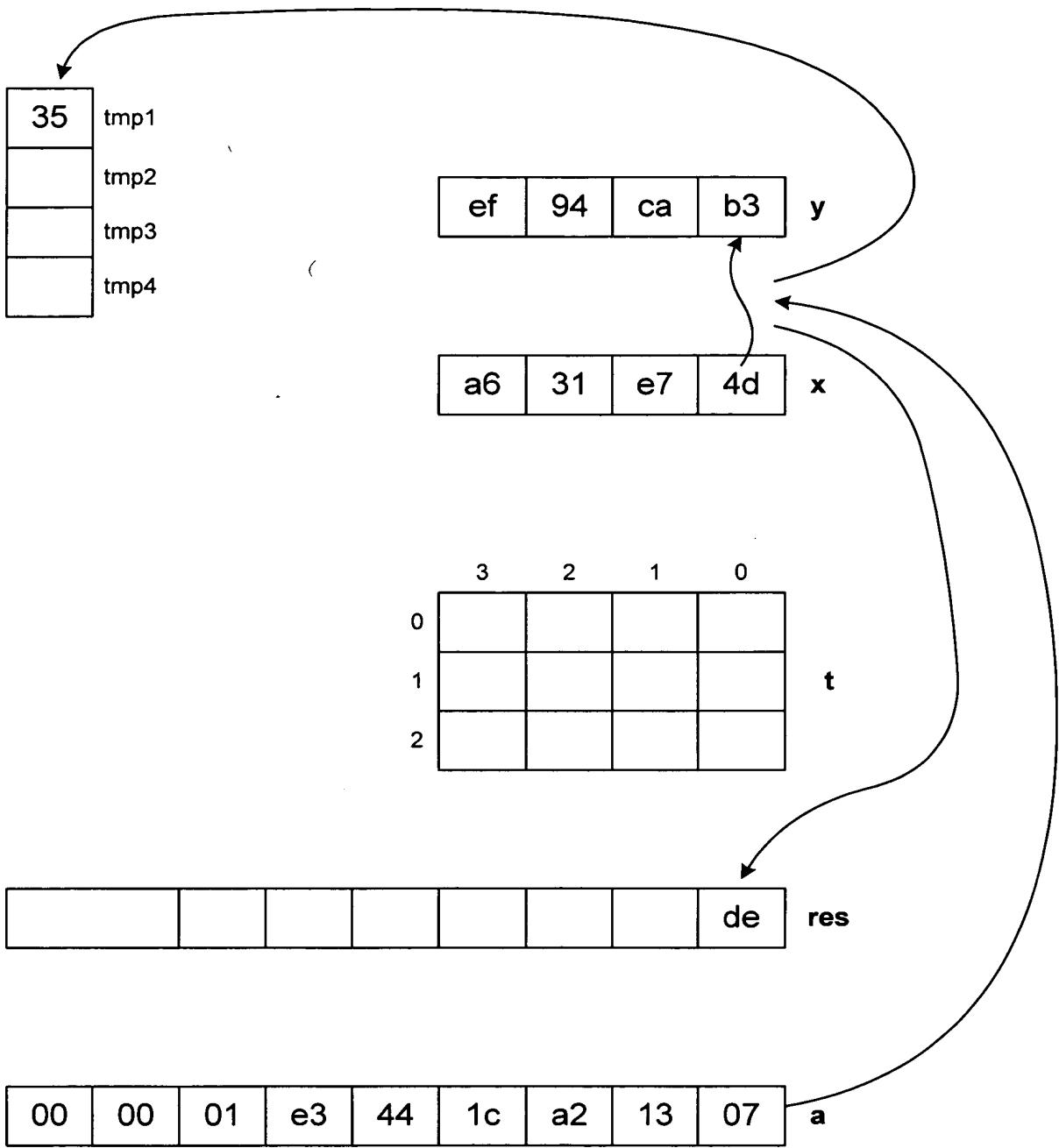


Figure 4B



30/38

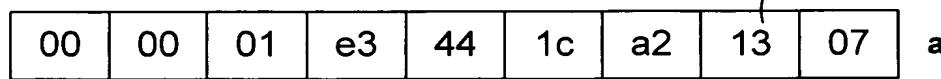
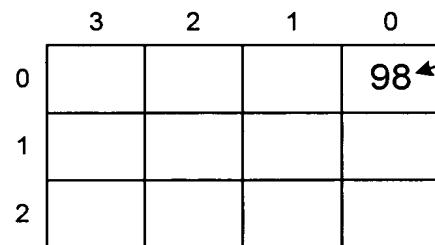
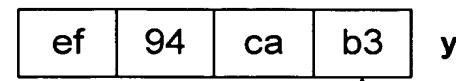
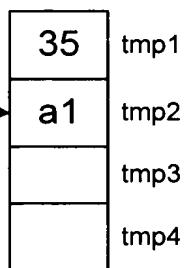


Figure 4C



31/38

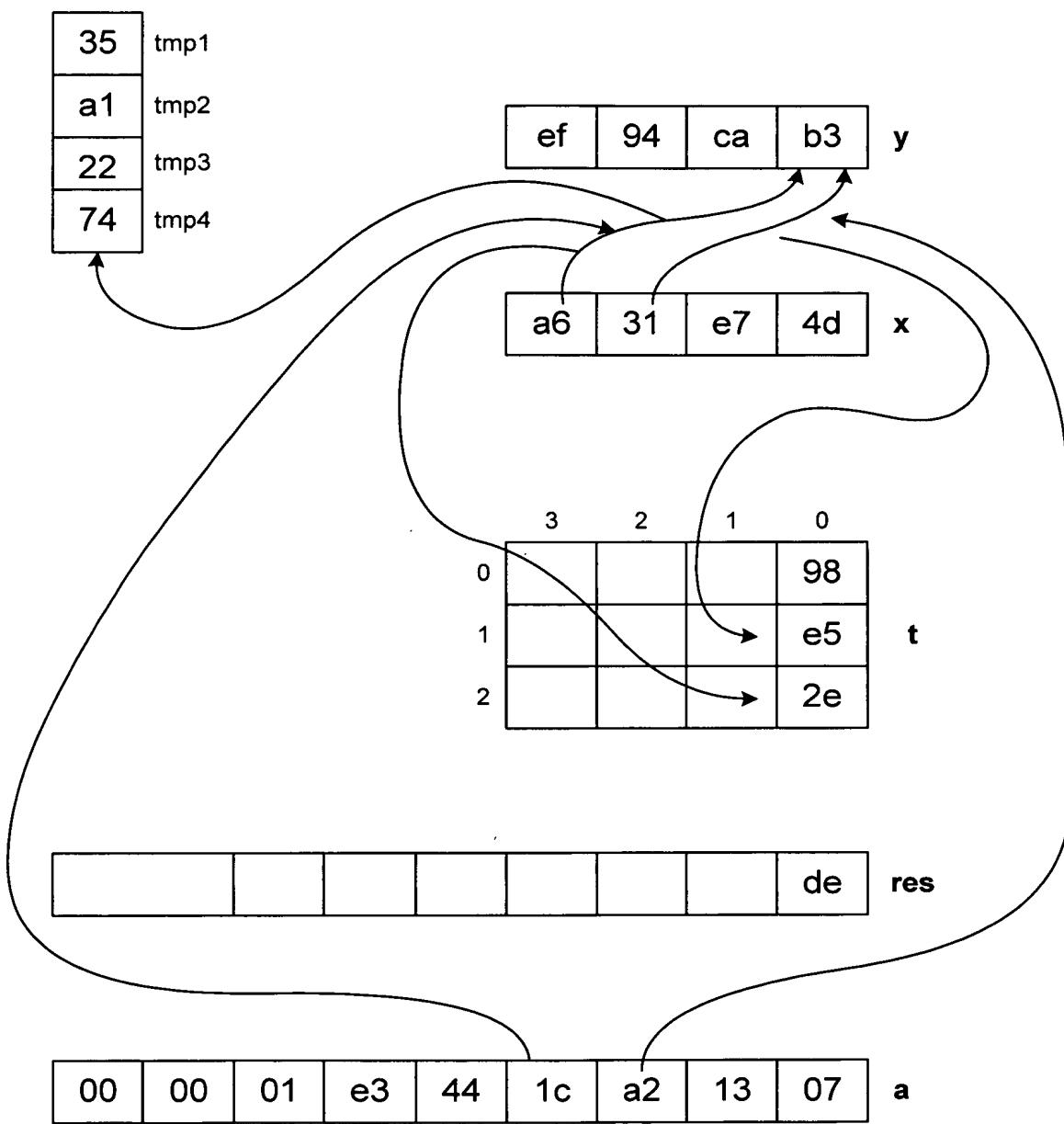


Figure 4D



32/38

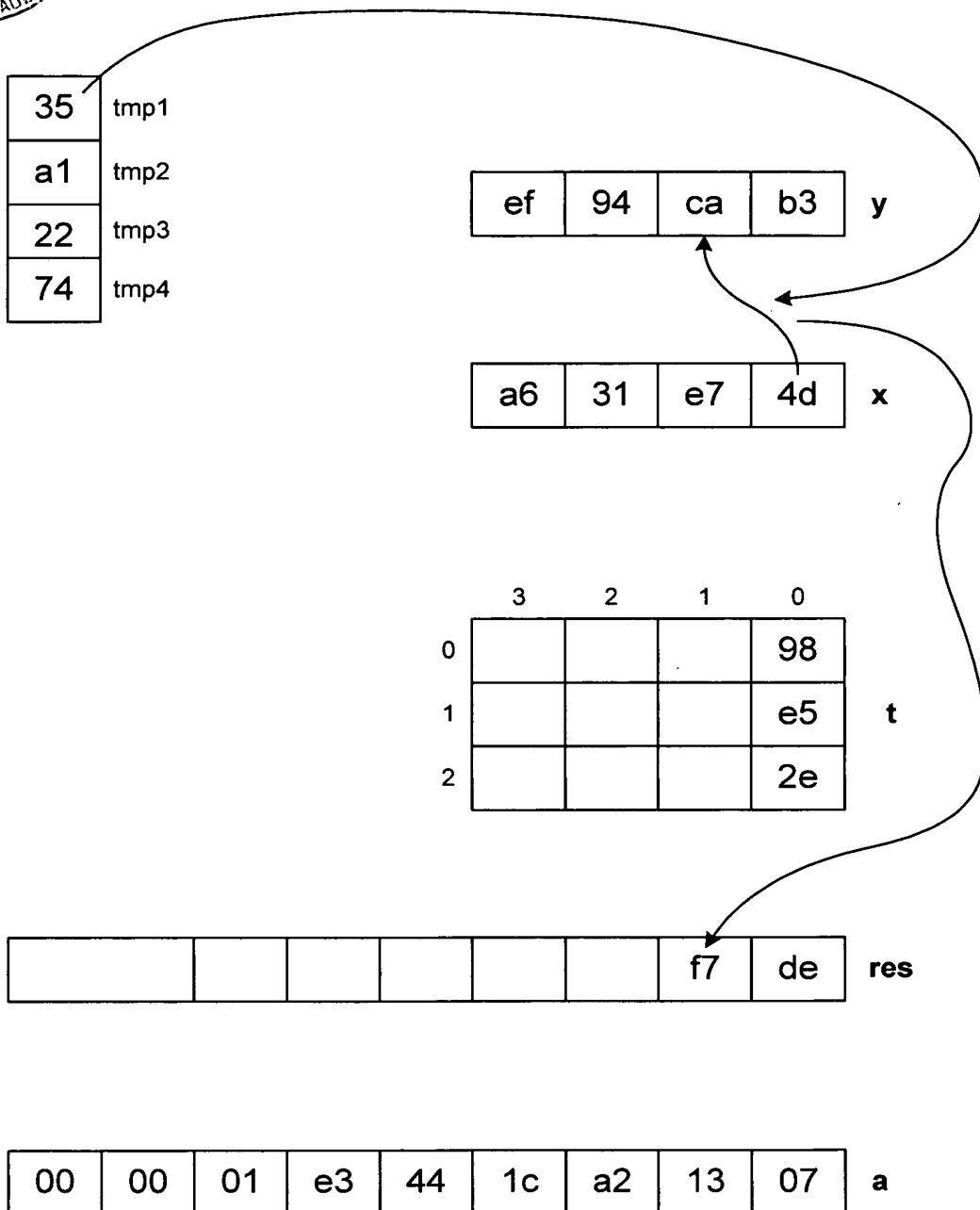
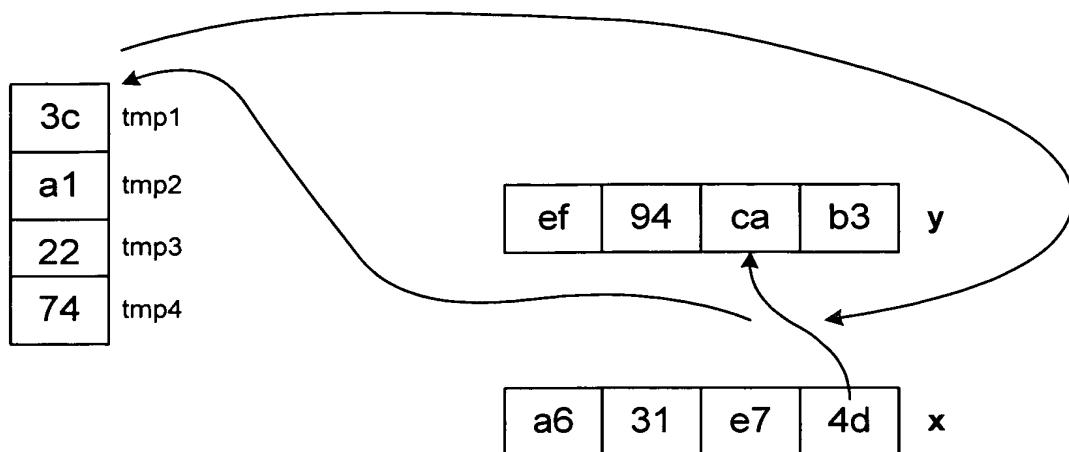


Figure 4E



33/38



	3	2	1	0	
0				98	
1				e5	t
2				2e	

						f7	de	res
--	--	--	--	--	--	----	----	-----

00	00	01	e3	44	1c	a2	13	07	a
----	----	----	----	----	----	----	----	----	---

Figure 4F



34/38

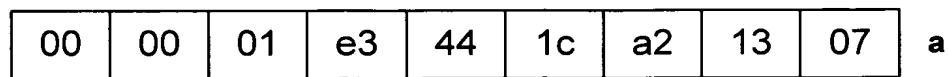
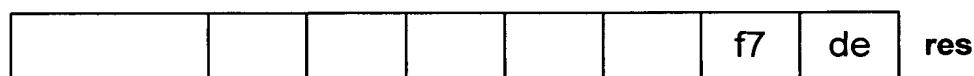
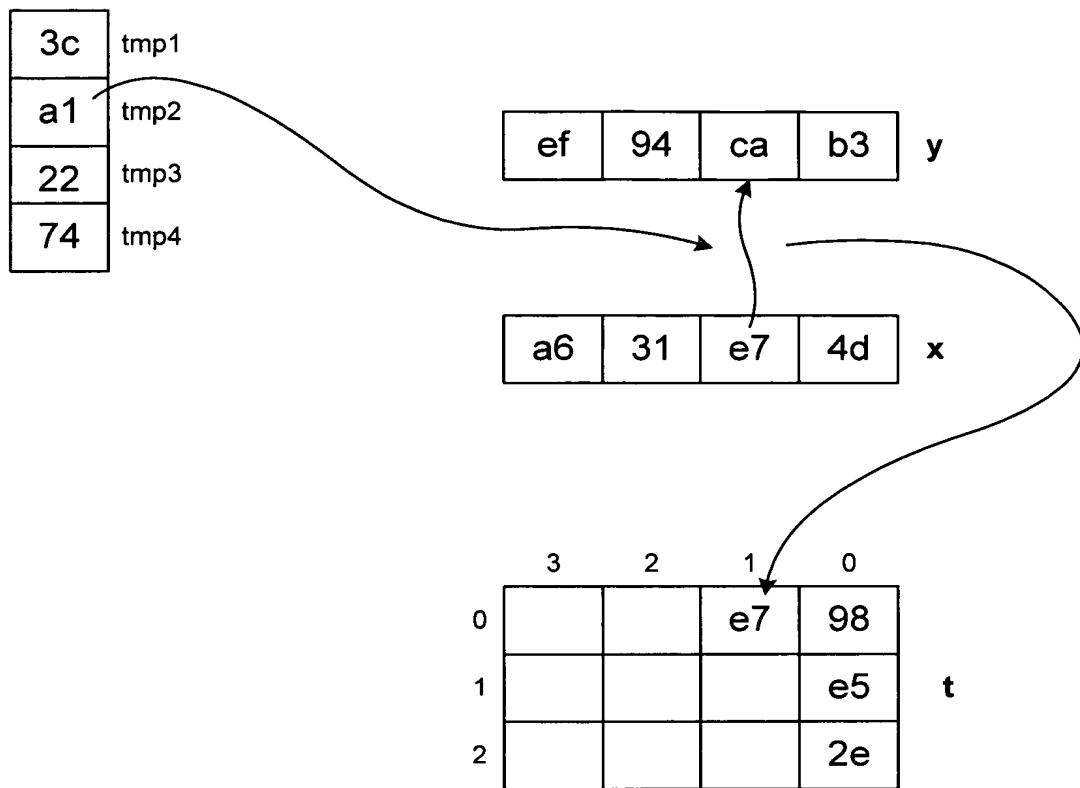
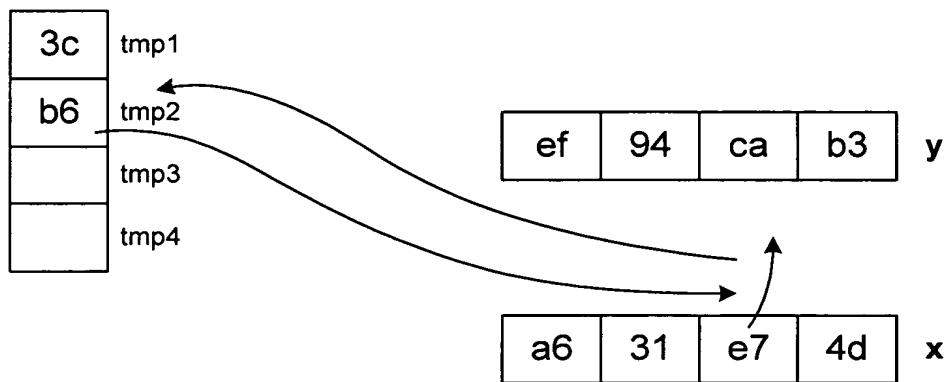


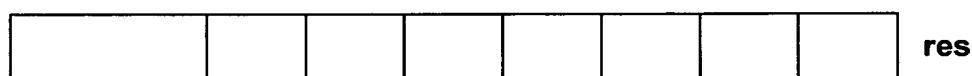
Figure 4G



35/38



	3	2	1	0	
0			e7	98	
1				e5	t
2				2e	



00	00	01	e3	44	1c	a2	13	07	a
----	----	----	----	----	----	----	----	----	---

Figure 4H



36/38

3c	tmp1
b6	tmp2
26	tmp3
83	tmp4

ef	94	ca	b3	y
----	----	----	----	---

a6	31	e7	4d	x
----	----	----	----	---

	3	2	1	0	
0			e7	98	
1			cc	e5	t
2			70	2e	

						f7	de	res
--	--	--	--	--	--	----	----	-----

00	00	01	e3	44	1c	a2	13	07	a
----	----	----	----	----	----	----	----	----	---

Figure 4I



37/38

2c	tmp1
86	tmp2
1c	tmp3
60	tmp4

ef	94	ca	b3	y
----	----	----	----	---

a6	31	e7	4d	x
----	----	----	----	---

	3	2	1	0	
0		42	e7	98	
1		7a	cc	e5	t
2		7b	70	2e	

					c0	f7	de	res
--	--	--	--	--	----	----	----	-----

00	00	01	e3	44	1c	a2	13	07	a
----	----	----	----	----	----	----	----	----	---

Figure 4.J



38/38

2c
86
1c
60

tmp1

tmp2

tmp3

tmp4

ef	94	ca	b3
----	----	----	----

y

a6	31	e7	4d
----	----	----	----

x

	3	2	1	0
0	2f	42	e7	98
1	db	7a	cc	e5
2	5a	7b	70	2e

t

9b	2d	d8	48	of	c0	f7	de
----	----	----	----	----	----	----	----

res

00	00	01	e3	44	1c	a2	13	07
----	----	----	----	----	----	----	----	----

a

Figure 4K